

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 02031 WO/HB	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/004057	International filing date (day/month/year) 17 April 2003 (17.04.2003)	Priority date (day/month/year) 20 April 2002 (20.04.2002)
International Patent Classification (IPC) or national classification and IPC C08K 3/22		
Applicant CHEMETALL GMBH		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 14 November 2003 (14.11.2003)	Date of completion of this report 24 August 2004 (24.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/004057

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-41 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____ 3 (Part.), 4-30 _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____ 1, 2, 3 (Part.) _____, filed with the letter of _____ 14 April 2004 (14.04.2004)
- ☐ the drawings:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-30	YES
	Claims		NO
Inventive step (IS)	Claims	1-30	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-30	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

- D1: EP-A-0 328 047 (EMERSON & CUMING INC)
16 August 1989 (1989-08-16)
- D2: US-B1-6 284 817 (BENNINGTON LESTER D ET AL)
4 September 2001 (2001-09-04)
- D3: US-A-5 855 820 (CHAN MAN-SHEUNG ET AL)
5 January 1999 (1999-01-05)
- D4: US-A-3 175 991 (MORRIS LEVINE ET AL)
30 March 1965 (1965-03-30).

The claimed mixtures for the application of a polymer coating differ from those disclosed in D1 to D4 by virtue of the claimed combination of properties of particle type A: the particle size and hardness of particle A claimed in the present application are not known in combination from said documents. The claimed combination of said substance A with a further substance, B or C, or with carbon black is also not disclosed therein.

D4 is considered to be the closest prior art. Said document (see D4, claims 1, 9 and 10; examples 5-10; column 1, lines 12-56; column 5, lines 16-60; column 6,

/...

line 64 to column 7, line 18) discloses the use, in welding, of polymer coatings containing, for example, ZnO and graphite. The aforementioned claimed combination of properties of particle type A is not disclosed in D1. In the examples and comparative examples, the applicant demonstrates that only substance A in combination with any one of substance B, substance C or carbon black, as per the application, yields the desired advantageous combination of properties, namely corrosion resistance, electroconductivity and mechanical strength. The less advantageous properties of coatings that contain either only substance A in a polymer matrix or combinations of substance B and/or substance C and/or carbon black can be seen from the comparative examples.

For the sake of completeness, it is advised that the claims lack clarity as follows:

expressions such as "soft", "hard", "very soft", "lightly ground", "ceraceous properties" and "essentially free of organic lubricant" lack clarity and cannot be considered distinguishing features over the prior art. The expression "substances based on compounds or mixtures of...such as, for example,..." lacks clarity.

From the wording for claim 26, it is not clear what acids and/or heavy metals and/or cations are excluded; in particular, the expression "and/or" appears to be misleading in this context.